



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

RECEIVED  
OCT 05 2001  
TECH CENTER 1600/2900

In re Application of: Shashoua, Victor E.

Serial No.: 09/715,763

Art Unit: 1653

Filed: November 17, 2000

Examiner: Mitra, R.

Entitled: COMPOSITIONS AND METHODS FOR  
COUNTERACTING EFFECTS OF  
REACTIVE OXYGEN SPECIES AND FREE  
RADICALS

Attorney Docket No.: CMX-001.1 US

Assistant Commissioner for Patents  
Washington, D.C. 20231

**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §§ 1.56, 1.97 AND 1.98**

Sir:

In accordance with the duty of disclosure under 37 CFR § 1.56, Applicant submits this Information Disclosure Statement pursuant to 37 CFR §§ 1.97 and 1.98 in the above-identified application for consideration by the Patent Office. A listing of the cited documents is also enclosed, as well as, for the Examiner's convenience, copies of the documents in the list. Pursuant to 37 CFR § 1.97(b)(3), because this Statement is being submitted before the first Office Action on the merits, no fee is required.

**U.S. Patents**

U.S. 4,297,344, issued October 27, 1981, Schwinn et al.;  
U.S. 4,783,441, issued November 8, 1988, Thurow;  
U.S. 4,812,557, issued March 14, 1989, Yasushi et al.;  
U.S. 5,096,885, issued March 17, 1992, Pearlman et al.;  
U.S. 5,098,893, issued March 24, 1992, Franks et al.;

### **Foreign Publications**

PCT publication WO 99/40112, published June 3, 1999, Shashoua;  
PCT publication WO 99/26620, published August 12, 1999, Shashoua;

### **Other Publications**

Adams et al., *General Cellular Biochemistry*, 77: 221-233 (2000);  
Adams et al., *J. Leukocyte Biol.*, 62: 865-873 (1997);  
Altschul, et al., *Nucl. Acids Res.* 25:3389-3402, 1997;  
Angel et al., *Cell* 49:729-739, (1987);  
Bederson et al., *Stroke*, 17:1304 (1986);  
Beyer & Fridovich, *Anal. Biochem.*, 161:559-566 (1987);  
Bodanszky and Bodanszky, The Practice of Peptide Synthesis (Springer-Verlag, New York (1984);  
Carpenter et al., *Pharm. Res.*, 14(8): 969 (1997);  
Ceballos-Picot, *CR Seances Soc. Biol. Fil.*, 187: 308-323 (1993);  
Chan et al., *Adv. Neurol.*, 71:271-279 (1996);  
Cornell-Bell et al., *Cell Calcium*, 12: 185-204 (1991);  
Cornell-Bell et al., *Science*, 247: 470-473 (1990);  
DiGuseppi, J. and Fridovich, I., *Crit. Rev. Toxicol.*, 12:315-342 (1984);  
Erdinler, D.S., et al., *Clin. Chim. Acta*, 265: 77-84 (1997);  
Fischer et. al., *Molecular Pharm.*, 40:846-853, (1991);  
Fridovich, *Adv. Enzymol.*, 41:35-97 (1974);  
Halliwell, B. and Gutteridge, J.M.C., eds. Free Radicals in Biology and Medicine, (Oxford: Clarendon Press, 1989);  
Hanks and Wallace, *Proc. Soc. Exp. Biol. Med.* 71:196 (1949);  
Horvitz et al., *Cold Spring Harbor Symposium Quant. Biol.*, 111:377 (1994);  
Hsu et al., *Stroke*, 24 (suppl. I): I-78-I-79 (1993);  
Huang et al., *Chung Kuo Chung Yao Tsa Chih*, 16: 414-416, 447 (1991) (abstract);  
Kaiser, et al., *Anal. Biochem.*, 34: 595-598 (1970);  
Lehninger, A. L., Biochemistry, second edition (Worth Publishers, Inc., New York, 1975), p. 72;  
Li et al., *Chung Kuo Chung Yao Tsa Chih*, 19: 300-302 (1994) (abstract);  
Li et al., *J. Cereb. Blood Flow Metab.*, 17:1132 (1997);  
Lucchesi, B.R., *Am. J. Cardiol.*, 65:14I-23I (1990);

- Mecocci, P. et al., *Free Radic. Biol. Med.*, 28: 1243-1248 (2000);
- Melov, et al., *Science*, 289: 1567-1569 (2000);
- Merrifield, *J. Am. Chem. Soc.*, 85:2149-2154 (1963);
- Minematsu et al., *Neurology*, 42:235 (1992);
- Morganstern and Glazer, *Arch. Gen. Psychiatr.*, 50: 723-733 (1993);
- Murakami et al., *Stroke*, 28: 1797-1804 (1997);
- Nagasawa and Kogure, *Stroke*, 20:1037 (1989);
- Niki, E., *Intern. Med.*, 39: 324-326 (2000);
- Pulsinelli, W.A. et al., *Ann. Neurol.*, 11: 499-502 (1982);
- Ratafia, *Pharmaceutical Executive*, pp. 74-80 (April 1991);
- Schabitz et al., *J. Cereb. Blood Flow Metabol.*, 17: 500-506 (1997);
- Shashoua and Hesse, *Life Sci.* 58:1347-1357 (1996);
- Somani et al., Oxidants, Antioxidants, and Free Radicals, chapter 6, pp. 125-141, Baskin, S.I. and H. Salem, eds. (Taylor & Francis, Washington, D.C., 1997);
- Tabuchi et al., *J. Biol. Chem.*, 271: 31061-31067 (1996);
- Tong and Perez-Polo, *J. Neurosci. Res.*, 45: 1-12 (1996);
- Toyokuni, S., *Pathol. Int.*, 49: 91-102 (1999);
- Tsai et al., *Am. J. Psychiatr.*, 155: 1207-1253 (1998);
- Walton, M. et al., *Brain Res. Rev.*, 29:137-168 (1999);
- Wang et al., *Chung Kuo Chung Hsi I Chieh Ho Tsa Chih*, 12: 23-25, 5 (1992) (abstract);
- Wang et al., *Chung Kuo Chung Hsi I Chieh Ho Tsa Chih*, 13: 349-351, 325-326 (1993) (abstract);
- Yuan et al., *Cell* 75: 641 (1993);
- Zea Longa et al., *Stroke*, 20: 84 (1989).

Applicant does not intend to represent that any of the documents submitted herein is material prior art to this invention or that the list represents an exhaustive search of documents related to this invention.

Applicant respectfully requests that the documents submitted herein be considered and made of record in this application.

Respectfully submitted,

*Thomas R. Berka*

Leon R. Yankwich, Reg. No. 30,237  
Thomas R. Berka, Ph.D., Reg. No. 39,606  
Attorney(s) for Applicants  
YANKWICH & ASSOCIATES  
130 Bishop Allen Drive  
Cambridge, MA 02139  
Telephone: (617) 491-4343  
Telecopier: (617) 491-8801

CERTIFICATE OF MAILING

The undersigned hereby certifies that this correspondence is being deposited with the U.S. Postal Service as Express Mail No. EL 909960129 US, in an envelope addressed to the Asst. Commissioner for Patents, Washington, D.C. 20231 on the date indicated below:

October 2, 2001  
date

Stephanie L. Leicht  
Stephanie L. Leicht